

1 1. A method comprising:
2 receiving a request from an operating system for
3 file data; and
4 accessing a semiconductor memory storing
5 compressed file data.

1 2. The method of claim 1 further including
2 decompressing said compressed file data.

1 3. The method of claim 2 including using a device
2 driver to format the decompressed data in a format
3 compatible with a file system utilized by said operating
4 system.

1 4. The method of claim 3 including storing the
2 decompressed data in a buffer for use by a file system
3 driver.

1 5. The method of claim 1 including forming a file
2 system image of blocks of data of substantially equal size.

1 6. The method of claim 5 including compressing each
2 of said blocks to form a compressed file system image
3 formed of blocks of unequal size.

1 7. The method of claim 6 including affixing a header
2 to said file system image which provides information about
3 how to locate each block.

1 8. The method of claim 7 including providing in said
2 header information about the number of entries in an
3 allocation table and providing in said allocation table
4 information about the length of each of said compressed
5 blocks in said file system image.

1 9. The method of claim 1 including accessing an
2 operating system stored in said semiconductor memory.

1 10. An article comprising a medium storing
2 instructions that cause a processor-based system to:
3 receive a request from an operating system for
4 file data; and
5 access a semiconductor memory storing compressed
6 file data.

1 11. The article of claim 10 further storing
2 instructions that cause a processor-based system to
3 decompress said compressed file data.

1 12. The article of claim 11 further storing
2 instructions that cause a processor-based system to use a

3 device driver to format the de-compressed data in a format
4 compatible with a file system utilized by said operating
5 system.

1 13. The article of claim 12 further storing
2 instructions that cause a processor-based system to store
3 the de-compressed data in a buffer for use by a file system
4 driver.

1 14. The article of claim 10 further storing instruc-
2 tions that cause a processor-based system to form a file
3 system image of blocks of data of substantially equal size.

1 15. The article of claim 14 further storing
2 instructions that cause a processor-based system to
3 compress each of said blocks to form a compressed file
4 system image formed of blocks of unequal size.

1 16. The article of claim 15 further storing
2 instructions that cause a processor-based system to affix a
3 header to said file system image which provides information
4 about how to locate each block.

1 17. The article of claim 16 further storing
2 instructions that cause a processor-based system to provide
3 in a header a block allocation table including information

4 about the length of each of said compressed blocks in said
5 file system image.

1 18. The article of claim 17 further storing
2 instructions that cause a processor-based system to provide
3 in said header information about the number of entries in
4 said allocation table.

1 19. The article of claim 10 further storing
2 instructions that cause a processor-based system to access
3 an operating system stored in said semiconductor memory.

1 20. A system comprising:
2 a processor; and
3 a re-programmable semiconductor memory coupled to
4 said processor, said memory storing a compressed operating
5 system and compressed file data for said operating system.

1 21. The system of claim 20 wherein said memory is a
2 flash memory.

1 22. The system of claim 21 including a basic
2 input/output system stored in a compressed format on said
3 memory.

1 23. The system of claim 22 including, stored on said
2 memory, a primary operating system and a backup operating
3 system for use when the primary operating system fails to
4 needs updating.

1 24. The system of claim 20 including a device driver
2 which decompresses said compressed data in said memory and
3 provides said data in a format used by the operating system.

1 25. The system of claim 24 including a file system
2 driver which organizes the data received from said device
3 driver into a file system.

1 26. The system of claim 20 wherein said semiconductor
2 memory stores an allocation table which indicates the
3 length of entries stored in said memory and the number of
4 entries in said allocation table.

1 27. The system of claim 20 wherein said file system
2 data stored in compressed form on said semiconductor memory
3 is formed into compressed blocks of unequal length.

1 28. The system of claim 20 including data for more
2 than one file system stored on said semiconductor memory.

1 29. The system of claim 27 including a loader and a
2 kernel for an operating system stored on said memory.

1 30. The system of claim 20 including a network
2 connection to download additional data from said network.